

REMARKS

Claims 1, 8 and 9 have been amended.

Claims 1, 3-4 and 6-9 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lobiondo (US Patent 5,287,194) in view of Hanson (US Patent 6,148,346). Applicant has amended independent claims 1, 8 and 9 and with respect to these claims, and their dependent claims, the Examiner's rejection is respectfully traversed.

Claim 1 has been amended to recite a remote printing server which receives data from a client computer via a local network and sends data over a global network so as to print the data on a remote printer which does not exist in the local network, comprising: print response means for performing a print control protocol for a local printer in the local network so that the client computer can recognize said remote printing server as a local printer in the local network, receiving print data from the client computer and performing a response to the client computer so that a print process of the print data can be completed locally in the client computer before the print data is spooled, spooling means for spooling the print data received by said print response means, transferring data conversion means for converting the print data spooled by said spooling means into a transferrable format in which the print data can be transferred to the remote printer over the global network using a predetermined transfer protocol and remote transfer means for transferring the print data converted into the transferrable format by said transferring data conversion means to the remote printer over the global network using the predetermined transfer protocol. Claims 8 and 9 have been amended to recite similar features.

The construction recited in amended independent claim 1 is not taught or suggested by the cited prior art. In the Office Action, the Examiner states that "Lobiondo discloses that the client computer (Workstation 30, fig.1) can recognize said remote printing server as a local

printer in the local network (a server computer is programmed to receive plot requests in a common spooling area sent from other workstations/clients in a network and/or a print shop scheduler 50 is located within the network either at the print server 60 or at various local workstations 30 within the network for analyzing the information relating to the job; see col. 1, lines 35-40 and col. 3, lines 40-45)” (Office Action, page 11-17).

Furthermore, the Examiner states that “Lobiondo discloses receiving print data from the client computer and performing a response to the client computer for completing a print process before the print data is spooled (scheduler 50 will prompt the user that the print queue is backed up and will have a completion time which is not in the near future. The user may then enter through the user interface a request to utilize a different printer, enter a required completion time and have the scheduler 50 allocate the job to one or more available printers; col. 5, lines 25-30)” (Office Action, page 3, lines 4-10).

Applicant has reviewed the cited references and respectfully disagrees with the Examiner’s assertions. Specifically, applicant does not believe that Lobiondo discloses a print response means for performing a print control protocol for a local printer in the local network so that the client computer can recognize said remote printing server as a local printer in the local network as a result of receiving print data from the client computer and performing a response to the client computer so that a print process of the print data can be completed locally in the client computer before the print data is spooled as recited in amended independent claim 1. These features provide for a print process executed by a local computer and sent to a remote printing server via a local network to be locally and temporarily completed by performing a print response process with the local computer before any data is transferred to a remote printer via global network. This print process includes a series of communications including a print

start command, sending and receiving a print status response, sending print data, a check of sending status, a print end command, session completion, etc. In other words, the remote print server executes all communications integral to a normal print process in response to the local computer via the local network. Only once this normal print process has been executed and, as a result, the local computer recognizes the remote print server as a local printer on the local network is print data sent to the remote printing server and spooled on the remote print server. Subsequently, the spooled print data is converted for remote transfer and transmitted via the global network to a remote printer.

Lobiondo, as shown in Fig.1, discloses a print server 60, workstations 30 and local printers 10 connected via a local communication link 20. Furthermore, Lobiondo discloses remote printers 10 accessible to the print server 60 through a modem 25 connecting the local combination link and a remote communication link. As stated by the Examiner, information relating to print jobs to be printed is input at the workstations 30 and stored in the print server (Col. 3, lines 32-41). The scheduler 50 analyzes the information relating to a print job, the print job data itself and known information about the current capabilities of all printing resources within the network and schedule the printing of print jobs at one or more of the printers 10 to obtain an efficient use of all available resources (Col. 3, lines 41-50). As also stated by the Examiner, Lobiondo discloses that if a large number of print jobs or a large single job, are in a selected print queue, the scheduler 50 will prompt a user at a workstation 30 that the print queue is backed up and will have a completion time which is not in the near future (Col. 5, lines 23-27). The user may then enter through the user may enter through a user interface a request to utilize a different printer, enter a required completion time and have the scheduler 50 allocate the job to one or more available printers or chose the selected full print queue if printing is

desired at a specific location selected and completion time is not important (Col. 5, lines 27-33).

However, Lobiondo does not disclose the print server responding to a print job submitted by a workstation in a manner which allows that workstation to locally complete the submitted print job and thereby recognize the print sever as a local printer before the print data associated with that print job is spooled on the print server. Rather, Lobiondo discloses that a user at one of the workstations 30 enters a request to print a job, sends the print job data to a network print spooler on the print server 60, and enters all necessary criteria which are stored in an input data file in memory on the print server (Col. 3, lines 56-60). The scheduler 50 may schedule a large job across multiple printers including local and remote printers (Col. 4, lines 16-19). After analysis of the submitted print job, the scheduler 50 can notify the user how the job was distributed or will be distributed and when the job is to be completed. Therefore, contrary to the present invention, Lobiondo discloses spooling print job data onto the print server immediately upon submission of the print job and prior to the print server responding to the workstation that submitted the print job. Moreover, Lobiondo is silent as to the print server responding to a submitted print job in a manner which enables a workstation to recognize the print server as a local printer which provides local completion of the submitted print job prior to the print server distributing the submitted print job to remote printers.

Hanson does not add anything to change this determination. As discussed in detail in our prior response, Hanson discloses that a server receives data from a client via a LAN and transmits the received data via the Internet.

Accordingly, the combination of Lobiondo and Hanson does not teach or suggest a print response means for performing a print control protocol for a local printer in the local network

so that the client computer can recognize said remote printing server as a local printer in the local network as a result of receiving print data from the client computer and performing a response to the client computer so that a print process of the print data can be completed locally in the client computer before the print data is spooled as recited in amended independent claim

1.

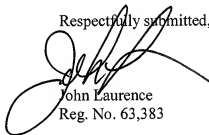
Therefore, none of the cited references discloses the above-described features of applicant's independent claims. Hence, applicant's amended claims 1, 8 and 9, and their dependent claims, thus patentably distinguish over the combination of Lobiondo and Hanson.

In view of the above, it is submitted that applicant's claims, as amended, patentably distinguish over cited art of record. Accordingly, reconsideration and allowance of the application and claims is respectfully requested.

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Respectfully submitted,



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